

Applicant: Alan R. Tall
Serial No.: 09/560,372
Filed : April 28, 2000
Page 2

and the amendments to the claims are indicated in the marked-up set of claims in Attachment A hereto.

ABC1
1. (Amended) An isolated human ABC1 promoter that directs transcription of a heterologous coding sequence positioned downstream therefrom, wherein the promoter is selected from the group consisting of:

ABC1
(a) a promoter comprising nucleotides having the nucleotide sequence shown in SEQ ID NO: 1 ;

ABC1
(b) a promoter comprising nucleotides having the nucleotide sequence beginning at bp -469 and ending at bp +101 of SEQ ID NO: 1; and

ABC1
(c) a promoter comprising nucleotides having the nucleotide sequence that hybridizes to a sequence complementary to the promoter of (a) or (b) in a Southern hybridization reaction performed under stringent conditions.

2. The promoter of claim 1, wherein the promoter comprises the nucleotide sequence shown in SEQ ID NO: 1.

3. The promoter of claim 1, wherein the promoter comprises a nucleotide sequence that is at least 87% homologous to SEQ ID NO: 1.

4. The promoter of claim 3, wherein the promoter comprises a nucleotide sequence that is at least 95% homologous to SEQ ID NO: 1.

Applicant: Alan R. Tall
Serial No.: 09/560,372
Filed : April 28, 2000
Page 3

5. A recombinant expression construct effective in directing the transcription of a selected coding sequence which comprises:

- (a) a human ABC1 promoter nucleotide sequence according to claim 1; and
- (b) a coding sequence operably linked to the promoter, whereby the coding sequence can be transcribed and translated in a host cell, and the promoter is heterologous to the coding sequence.

6. The recombinant expression construct of claim 5, wherein the coding sequence encodes a transporter polypeptide.

7. The recombinant expression construct of claim 6, wherein the transported polypeptide is ABCA1 transmembrane transporter protein.

8. (Amended) The recombinant expression construct of claim 6, further comprising a nucleic acid segment encoding a transactivator protein that upregulates the ABC1 promoter.

9. The recombinant expression construct of claim 8, wherein the transactivator protein is the Liver-X-Receptor, the Retinoid-X-Receptor, or a heterodimer of the Liver-X-Receptor and the Retinoid-X-Receptor.

10. A host cell comprising the recombinant expression construct of claim 5.

Applicant: Alan R. Tall
Serial No.: 09/560,372
Filed : April 28, 2000
Page 4

B3 11. (Amended) The host cell of claim 10, wherein the host cell is stably transformed with the recombinant expression construct.

12. The host cell of claim 10, wherein the host cell is a macrophage.

13. The host cell of claim 10, wherein the host cell is an immortalized cell.

14. The host cell of claim 10, wherein the cell is selected from the group consisting of RAW cells, African green monkey CV-1 cells and human 293 cells.

JK
B 15. (Amended) A method for expressing a foreign DNA in a host cell comprising: introducing into the host cell a gene transfer vector comprising the ABC1 promoter according to claim 1 operably linked to the foreign DNA encoding a desired polypeptide or RNA, wherein said foreign DNA is expressed.

16. The method of claim 15, wherein the promoter nucleotide sequence is identical to the sequence represented by SEQ ID NO: 1.

18. The method of claim 15, wherein the gene transfer vector encodes and expresses a reporter molecule.

19. The method of claim 18, wherein the reporter molecule is selected from the group consisting of beta-galactosidase, beta-glucuronidase, luciferase, chloramphenicol acetyltransferase, neomycin phosphotransferase, and guanine xanthine phosphoribosyltransferase.

Applicant: Alan R. Tall
Serial No.: 09/560,372
Filed : April 28, 2000
Page 5

20. (Amended) The method of claim 15, wherein the introducing is carried out by adenovirus infection, liposome-mediated transfer, topical application to the cell, or microinjection.

21. The method of claim 15, further comprising introducing into the cell a gene transfer vector comprising a nucleic acid segment encoding a transactivator protein capable of upregulating the ABC1 promoter.

22. The method of claim 21, wherein the transactivator protein is the Liver-X-Receptor, the Retinoid-X-Receptor, or a heterodimer of the Liver-X-Receptor and the Retinoid-X-Receptor.

23. The method of claim 15, further comprising contacting the cell with a transactivator protein capable of upregulating the ABC1 promoter

24. The method of claim 23, wherein the transactivator protein is the Liver-X-Receptor, the Retinoid-X-Receptor, or a heterodimer of the Liver-X-Receptor and the Retinoid-X-Receptor.

25. The method of claim 24, further comprising contacting the cell with an agonist of the Liver-X-Receptor, of the Retinoid-X-Receptor, or of a heterodimer of the Liver-X-Receptor and the Retinoid-X-Receptor.

49. (Amended) An isolated human ABC1 gene comprising at least six exons and a promoter, wherein the promoter is selected from the group consisting of:

Applicant: Alan R. Tall
Serial No.: 09/560,372
Filed : April 28, 2000
Page 6

Re-claimed

- (a) a promoter comprising nucleotides having the nucleotide sequence shown in SEQ ID NO: 1 ;
- (b) a promoter comprising nucleotides having the nucleotide sequence beginning at bp -469 and ending at bp +101 of SEQ ID NO: 1; and
- (c) a promoter comprising nucleotides having the nucleotide sequence that hybridizes to a sequence complementary to the promoter of (a) or (b) in a Southern hybridization reaction performed under stringent conditions.

V